

Applicants : Curtis A. Trudeau et al
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REMARKS

Applicants respectfully request reconsideration of the application identified above. Claims 1-27 are pending in the application and claims 1, 3-4 and 6-9 are amended. Applicants respectfully traverse the rejections as conceivably applied to the pending claims.

I. Interview Summary

Applicants wish to express appreciation to Examiners Brown and Dickson for the courtesies extended to the Applicant's attorney in the personal interview on April 24, 2006, during which independent claims 1 and 7 were discussed in view of U.S. Patent 4,396,202 to Kami and independent claims 1, 7, 11, 17 and 23 were discussed in view of U.S. Patent 4,641,843 to Morrisroe in further view of U.S. Patent 5,913,525 to Schneider. Although no formal agreement was reached on all the claims, the Examiners stated that amendment of claim 1 to recite multi-axis measurement relative to a horizontal plane would be considered favorably. The Examiners also "agreed that combining the teachings of Schneider et al to include the automatic controlling aspects in the leveling system of Morrisroe, Jr. while the level vehicle is parked or in neutral would not have been obvious to one having ordinary skill in the art." Examiner's Interview Summary, Pg. 3. It is respectfully submitted that Examiner Brown will find the amended claims allowable after further consideration.

II. Rejections under 35 U.S.C. §112, Second Paragraph

As originally presented, claims 8-10 were rejected under 35 U.S.C. §112, Second Paragraph as being indefinite for failing to particularly point and distinctly claim the subject matter

which the Applicants regard as the invention. Applicants respectfully submit that the §112, Second Paragraph rejections are overcome with the present amendment to claim 8.

III. Rejections Based on Kami

As originally presented, claims 1 and 5-10 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent 4,396,202 to Kami.

Kami is directed to a vehicle ride height adjustment system that adjusts the ride height of a vehicle frame relative to the front and rear axles. Kami describes “a pair of sensors 16, 17 for detecting a vehicle level or ride height [that] are provided at the front and rear of the vehicle where the sensors are coupled between the vehicle frame and the wheels. Each of the level sensors 16, 17 should preferably be located close to one of the adjacent front and rear wheels for increased degree of accuracy of vehicle level detection.” Col. 3, Lns. 22-29 (Emphasis supplied.). Notably, the phrase “level” *does not* refer to being level relative to a horizontal plane; rather, it refers to a certain degree of ride height. For example, Kami specifies that its control can raise ride height by supplying pressurized air “when the vehicle riding height is below a predetermined level.” Col. 4, Lns. 7-8. In addition, the plumbing system of Kami (Fig. 1) is only capable of raising and lowering either the front or rear suspension elements simultaneously or independently via the single rear airline 32 and the single front airline 31. Thus, there is the ability in Kami only to provide ride height leveling of the frame relative to the wheels. There is no ability to provide single axis leveling *relative to a horizontal plane*, let alone multi-axis leveling relative to a horizontal plane.

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Applicants respectfully submit that Kami fails to anticipate amended independent claims 1 and 7 because it fails to disclose: (a) measuring a first angle of a first vehicle axis and a second angle of a second vehicle axis relative to a horizontal plane or automatically adjusting at least one of at least four fluid suspension elements via an electronic ride height control system where at least one of the first angle of the first vehicle axis and the second angle of the second vehicle axis relative to the horizontal plane is changed (claim 1); or (b) a sensor that measures the orientation of at least two vehicle axes relative to the horizontal plane or a controller that automatically adjusts at least one of at least four fluid suspension elements with an electronic ride height control system where the orientation of at least one of the at least two vehicle axes relative to the horizontal plane is changed. Again, Kami is directed to a simple ride height control system, which fails to have any capacity to level a vehicle relative to a horizontal plane, let alone measure more than one vehicle axis.

Accordingly, Applicants respectfully submit that in view of the amended independent claims, the rejections based on Kami are unfounded and should be withdrawn.

IV. Claim Rejections Based on Morrisroe in View of Schneider et al

As previously presented, claims 1-27 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 4,641,843 to Morrisroe in view of U.S. Patent 5,913,525 to Schneider; and previously presented claims 2 and 4 were rejected under 35 U.S.C. §103(a) as being unpatentable over Kami in view of Schneider.

Morrisroe is directed to an air beam suspension system including an operator display and a control. The Morrisroe control (Fig. 2) is in communication with each of the air beam suspension elements. Each air beam is in communication with an air tank and respective leveling valves 32, 34, 36, and 38—all of which are *only manually* operable. Further, only after *parking* the vehicle does the operator manipulate the controls (Fig. 2) to achieve a level position of the vehicle, for example, by reading a conventional bubble indicator. Col. 3, Lns. 50-61.

Schneider is directed to a conventional hydraulic jack leveling system including only *three (3)* jacks. As shown in Fig. 7, a display and a level sensor assists the user in *manually* operating the jack system to level the vehicle. The system also includes an excess slope condition indicator 754 as shown in Fig. 7. The excess slope indicator alerts an operator that the vehicle frame is at an angle relative to level which exceeds the adjustment capability of one or more of the jacks. This indicator, however, and the jacking system, are operable only *after* the transmission of the vehicle is engaged in neutral or park *and* when the parking brake is engaged. Col. 7, Lns. 57-62. As stated in the Examiner's Interview Summary, the "Examiner agreed that combining the teaching of Schneider et al to include the automatic controlling aspects and the leveling of Morrisroe, Jr. while the vehicle is parked or in neutral would not have been obvious to one having ordinary skill in the art." Examiner's Interview Summary, Pg. 3.

Applicants further point out that Schneider and Morrisroe are not properly combinable because there is no motivation to combine the references given that their combination would change the principle of operation of the references—namely, it would delete the safety feature

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requirement that the vehicle in both Morrisroe and Schnieder be stopped and at a stand still, i.e. not moving.

Moreover, Applicants point out that in addition to being uncombinable, Morrisroe and Schneider fail to disclose, teach or suggest measuring the orientation of a vehicle relative to a horizontal plane (e.g. measuring the level of the vehicle) *as the vehicle moves*. In contrast, both Schneider and Morrisroe require that for operation, the leveling system operate only when the vehicle is at a stand sill, and/or when the vehicle parking brake is engaged and the transmission in neutral. These, as pointed out above, are safety systems required by each of the respective systems. Indeed, Schneider is completely inoperable when a vehicle is moving as the three leveling jacks would dig into the ground and prevent the vehicle from moving at all.

V. Claim Rejections Based on Kami in View of Schneider

As previously presented, claims 2 and 4 are rejected under 35 U.S.C. §103(a) as being unpatentable over Kami in view of Schnieder.

Applicants respectfully submit that (1) these references are not properly combinable and (2) even if combined, the references fail to disclose, teach or suggest the subject matter of claims 2 and 4.

First, Applicants point out that Kami is directed to a ride height adjustment system that adjusts the height of the frame relative to the wheels of the vehicle—it has nothing to do with leveling the vehicle relative to a horizontal plane—let alone doing so with a separate set of three jacks that extend from the frame of the vehicle and engage the ground to lift the frame off the ground

as disclosed in Schneider. Further, the three jack leveling system of Schneider requires the manual input and manipulation of a human operator to control the system in leveling the vehicle relative to a horizontal plane. Indeed, the stated purpose and goal of Schneider is “to provide a manually operated semi-automatic vehicle leveling system which is relatively simple in its components, installation and operation . . . [and] . . . to provide several features for use with a manual operated vehicle leveling system which enhance operation of the system and simplify the leveling process for the operator.” Col. 1, Lns. 30-35. This contrasts the automatic ride height control of Kami, which again, has nothing to do with leveling relative to a horizontal plane.

Second, even if combined, Kami and Schneider fail to disclose, teach or suggest automatically adjusting at least four fluid suspension elements via an electronic ride height control system based on leveling instructions. Again, the three jack leveling system of Schneider is incapable of the automatic adjustment, and the *ride height* control system of Kami is incapable of the multi-vehicle axis leveling relative to a horizontal plane.

Accordingly, Applicants respectfully submit that the rejection of claims 2 and 4 based on Kami and/or Schneider is unfounded and should be withdrawn.

Dependent claims 2-6, 8-10, 12-16, 18-22 and 24-27 depend from independent claims 1, 7, 11, 17 and 23, respectively and are allowable for at least the reasons discussed above.

CONCLUSION

In view of the above amendments and these Remarks, Applicants respectfully submit that the present application is in condition for allowance. A notice to that effect is earnestly and

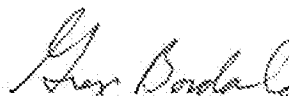
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respectfully requested. If the Examiner believes that any further issues should be discussed, he is invited to contact the undersigned.

Respectfully submitted,

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